

Amendments to the Claims:

This listing of claims will replace all prior versions and listings, of claims in the application.

1. (Currently Amended) A navigation system comprising:

a central station generating integrity signals having integrity information;

at least one non-geostationary satellite receiving said integrity signals and generating a plurality of signals having said integrity information that is generated offboard said at least one satellite; and

a navigation receiver determining a range of said at least one non-geostationary satellite, a position of said at least one satellite, and an accuracy of at least one of said range and said position in response to said plurality of signals.

2. (Original) A system as in claim 1 wherein said at least one satellite generates said plurality of signals comprising range and integrity information that is transmitted on a single frequency.

3. (Original) A system as in claim 1 wherein said at least one non-geostationary satellite generates said plurality of signals over an L5 frequency.

4. (Original) A system as in claim 1 wherein said at least one non-geostationary satellite generates said plurality of signals comprising a timing signal and a data signal.

5. (Original) A system as in claim 1 wherein said at least one non-geostationary satellite generates a first signal and a second signal, said second signal having said integrity information.

6. (Original) A system as in claim 5 wherein said at least one non-geostationary satellite generates said first signal comprising timing information and said second signal comprising timing and integrity information.

7. (Original) A system as in claim 5 wherein said navigation receiver determines said range and said position in response to said first signal and said second signal.

8. (Original) A system as in claim 5 wherein said at least one non-geostationary satellite generates and transmits said first signal and said second signal on L-band frequencies.

9. (Original) A system as in claim 1 wherein said navigation receiver performs as an integrity-monitoring device.

10. (Original) A system as in claim 1 wherein said navigation receiver monitors a plurality of satellites and in response thereto determines accuracy of said position.

11. (Original) A system as in claim 1 wherein said at least one non geostationary satellite generates said plurality of signals comprising integrity information that is related to health of the at least one non-geostationary satellite.

12. (Original) A system as in claim 11 wherein said at least one non-geostationary satellite generates said plurality of signals comprising integrity information that is indicative of accuracy of said range and said position.

13. (Original) A system as in claim 1 wherein said navigation receiver determines accuracy of said position in response to said integrity information.

14. (Cancelled)

15. (Currently Amended) A system as in claim 1 ~~further comprising a control center generating~~ wherein the central station generates a reliability signal, said receiver determining reliability of said position in response to said reliability signal.

16. (Currently Amended) A system as in claim 1 ~~further comprising a control center generating~~ wherein the central station generates a reliability signal, said receiver determining reliability of said range in response to said reliability signal.

17. (Currently Amended) A system as in claim 1 further comprising a monitoring ~~center station~~ monitoring said at least one non-geostationary satellite and generating a measured signal[[:]], ~~and a wherein the control center central station generating an~~ said integrity signal in response to said measured signal.

18. (Currently Amended) A system as in claim 17 wherein said ~~control center~~ central station generates a reliability signal in response to said measured signal.

19. (Original) A system as in claim 18 wherein said at least one non-geostationary satellite adjusts said integrity information in response to said reliability signal.

20. (Currently Amended) A system as in claim 1 ~~further comprising a~~ wherein said control center central station having has a first ground antenna and a second ground antenna, said first ground antenna transmitting a ~~data~~ said integrity signal and said second ground antenna transmitting a reliability signal.

21. (Currently Amended) A system as in claim 1 further comprising:
a plurality of monitoring stations generating measured signals in response to said plurality of signals[[:]], ~~and a~~
wherein said central station is in communication with said monitoring stations and ~~generating~~ generates said integrity signals and reliability signals in response to said measured signals.

22. (Currently Amended) A navigation system comprising:
a central station generating integrity signals having integrity information;

at least one non-geostationary satellite receiving said integrity signals
and generating a plurality of signals having said integrity information ~~that is received and is~~
~~generated offboard said at least one satellite~~; and

a navigation receiver determining range of said at least one
non-geostationary satellite, position of said at least one non-geostationary satellite, and
reliability of at least one of said range and said position in response to said plurality of
signals.

23. (Original) A system as in claim 22 wherein said navigation receiver
determines accuracy of said position in response to said plurality of signals.

24. (Currently Amended) A navigation receiver for a navigation system receiving
a plurality of signals having integrity information, ~~which is generated offboard said at least~~
~~one satellite~~, from at least one non-geostationary satellite,

wherein said integrity information is transmitted to said at least one
non-geostationary satellite from a central station and further,

wherein said navigation receiver has integrity-monitoring software for
utilizing said integrity information,

said navigation receiver determining range of said at least one
non-geostationary satellite, satellite position of said at least one non-geostationary satellite,
and accuracy of at least one of said range and said position in response to said plurality of
signals.

25. (Original) A receiver as in claim 24 wherein the navigation receiver performs
as an integrity-monitoring device.

26. (Original) A receiver as in claim 24 wherein the navigation receiver
determines accuracy of said satellite position in response to said integrity information.

27. (Original) A receiver as in claim 24 wherein the navigation receiver determines accuracy of said range in response to said integrity information.

28. (Original) A receiver as in claim 24 wherein the navigation receiver determines position of said receiver in response to said plurality of signals.

29. (Original) A receiver as in claim 24 wherein said navigation receiver receives said plurality of signals over a single frequency.

30. (Original) A receiver as in claim 24 wherein the navigation receiver determines reliability of said satellite position.

31. (Original) A receiver as in claim 24 wherein the navigation receiver determines reliability of said range.

32. (Original) A receiver as in claim 24 wherein the navigation receiver determines reliability of said range and said satellite position and in response to said reliability determines timing and velocity of a vehicle associated with the navigation receiver.

33. (Currently Amended) A method of operating a navigation system comprising:
transmitting integrity information from a central station to at least one non-geostationary satellite;

generating a plurality of signals having said integrity information from said at least one non-geostationary satellite, ~~said integrity information is received by and is generated offboard said at least one satellite;~~ and

determining range of said at least one non-geostationary satellite, position of said at least one non-geostationary satellite, and accuracy of at least one of said range and said position in response to said plurality of signals.

34. (Currently Amended) A method as in claim ~~[[30]]~~ 33 wherein said plurality of signals are generated over a single frequency.

35. (Currently Amended) A method as in claim ~~[[30]]~~ 33 further comprising determining reliability of said range.

36. (Currently Amended) A method as in claim ~~[[30]]~~ 33 further comprising determining reliability of said position.

37. (Previously Presented) A receiver as in claim 24 that is configured to perform as an integrity-monitoring device and to perform an internal self-consistency check in response to said plurality of signals.

38. (Previously Presented) A receiver as in claim 37 that is configured to exclude information received from at least one of said at least one non-geostationary satellite in response to said self-consistency check.